



Emerging tropical diseases in Australia. Part 4. Mosquitoborne diseases

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Abstract:

Mosquito-borne diseases continue to be a serious public-health concern in Australia. Endemic alphaviruses (including Ross River and Barmah Forest viruses) account for the majority of the arboviral notifications, while some flaviviruses (Murray Valley encephalitis, Japanese encephalitis and Kunjin viruses) cause occasional outbreaks of encephalitis. Dengue epidemics are increasing in frequency in northern Queensland, with the largest outbreak in 50 years occurring during the 2008-2009 wet season. Of great concern are the threats posed by the importation of exotic arboviruses, such as West Nile, chikungunya and Rift Valley fever viruses, the introduction of exotic vectors, and the potential range expansion of key Australian vectors. Environmental and anthropogenic influences provide additional uncertainty regarding the future impact of mosquito-borne pathogens in Australia. This review discusses the trends, threats and challenges that face the management of mosquito-borne disease in Australia. Topical mosquito-borne pathogens of biosecurity and public-health concern, and the potential impacts of environmental and global trends, are discussed. Finally, a short overview of the public-health response capability in Australia is provided.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

Geographic Feature:

resource focuses on specific type of geography

Tropical

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact:

Climate Change and Human Health Literature Portal

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Barmah Forest Virus, Chikungunya, Dengue, Rift Valley Fever, Ross River Virus, Viral Encephalitis, Viral Encephalitis, West Nile Virus, Other Mosquito-borne Disease

Mosquito-borne Disease (other): Kunjin viruses

Intervention: 

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation: 

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: 

format or standard characteristic of resource

Review

Timescale: 

time period studied

Time Scale Unspecified